

WHAT IS CLAIMED IS:

1. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.8 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide) :

<chem>SiO2</chem>	> 58 - 65
<chem>B2O3</chem>	> 6 - 11.5
<chem>Al2O3</chem>	> 14 - 25
<chem>MgO</chem>	4 - 8
<chem>CaO</chem>	0 - 8
<chem>SrO</chem>	2.6 - < 4
<chem>BaO</chem>	0 - < 0.5
with <chem>SrO + BaO</chem>	> 3
<chem>ZnO</chem>	0 - 2

2. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.4 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide) :

<chem>SiO2</chem>	> 58 - 65
<chem>B2O3</chem>	> 6 - 11.5
<chem>Al2O3</chem>	> 14 - 25
<chem>MgO</chem>	4 - 8
<chem>CaO</chem>	0 - < 2
<chem>SrO</chem>	> 0.5 - < 4
<chem>BaO</chem>	0 - < 0.5
<chem>ZnO</chem>	0 - 2

3. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.6 \times 10^{-6}/K$ , which has the following composition (in % by weight, based on oxide) :

<chem>SiO2</chem>	> 58 - 65
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B <sub>2</sub> O <sub>3</sub>	> 6 - 11.5
Al <sub>2</sub> O <sub>3</sub>	> 21 - 25
MgO	4 - 8
CaO	0 - 8
SrO	2.6 - < 8
BaO	0 - < 0.5
with SrO + BaO	> 3
ZnO	0 - 2.

4. The aluminoborosilicate glass according to Claim 1 or 2, characterized in that it comprises more than 18% by weight, preferably at least 20.5% by weight, particularly preferably at least 21% by weight, of Al<sub>2</sub>O<sub>3</sub>.

5. The aluminoborosilicate glass according to at least one of Claims 1 to 4, characterized in that the glass comprises more than 8% by weight of B<sub>2</sub>O<sub>3</sub>.

6. The aluminoborosilicate glass according to at least one of Claims 1 to 5, characterized in that it additionally comprises:

ZrO <sub>2</sub>	0 - 2
TiO <sub>2</sub>	0 - 2
with ZrO <sub>2</sub> + TiO <sub>2</sub>	0 - 2
As <sub>2</sub> O <sub>3</sub>	0 - 1.5
Sb <sub>2</sub> O <sub>3</sub>	0 - 1.5
SnO <sub>2</sub>	0 - 1.5
CeO <sub>2</sub>	0 - 1.5
Cl <sup>-</sup>	0 - 1.5
F <sup>-</sup>	0 - 1.5
SO <sub>4</sub> <sup>2-</sup>	0 - 1.5
with As <sub>2</sub> O <sub>3</sub> + Sb <sub>2</sub> O <sub>3</sub> + SnO <sub>2</sub> + CeO <sub>2</sub>	
+ Cl <sup>-</sup> + F <sup>-</sup> + SO <sub>4</sub> <sup>2-</sup>	0 - 1.5.

7. The aluminoborosilicate glass according to at least one

of Claims 1 to 6, characterized in that the glass is free of arsenic oxide and antimony oxide, apart from unavoidable impurities, and that it can be produced in a float plant.

8. The aluminoborosilicate glass according to at least one of Claims 1 to 7, which has a coefficient of thermal expansion  $\alpha_{20/300}$  of between  $2.8 \times 10^{-6}/K$  and  $3.6 \times 10^{-6}/K$ , a glass transition temperature  $T_g$  of  $> 700^\circ C$  and a density  $\rho$  of  $< 2.600 \text{ g/cm}^3$ .

9. Use of the aluminoborosilicate glass according to at least one of Claims 1 to 8 as substrate glass in display technology.

10. Use of the aluminoborosilicate glass according to at least one of Claims 1 to 8 as substrate glass in thin-film photovoltaics.